MINERALOGICAL JOURNAL

QE
351
M295

published by
The Mineralogical Society of Japan

ADVISORY BOARD

Zyunpéi HARADA (Asahikawa) Teiichi ITO (Tokyo)
Seitaro TSUBOI (Tokyo)

EDITORIAL BOARD

Editor

Ryoichi SADANAGA, Mineralogical Institute, Faculty of Science, University of Tokyo, Hongo, Tokyo 113.

Co-editors

Nobuo MORIMOTO, Institute of Scientific and Industrial Research, Osaka University, Yamadakami, Sutia, Osaka 565.

Mitsuoki NAKAHIRA, National Institute for Researches in Inorganic Materials, Kurakake, Sakura-mura, Niihari-gun, Ibaraki 300-30.

Ichiro SUNAGAWA, Institute of Mineralogy, Petrology and Economic Geology, Faculty of Science, Tohoku University, Aobayama, Sendai 980.

Fujio P. OKAMURA (Technical Editor), Mineralogical Institute, Faculty of Science, University of Tokyo, Hongo, Tokyo 113.

VOLUME 6

(Nos. 1-6, 1969-1972)

The Mineralogical Society of Japan

College of General Education, University of Tokyo
Komaba, Meguro-ku, Tokyo

MINERALOGICAL JOURNAL

published by

The Mineralogical Society of Japan

ADVISORY BOARD

Kyuzo Hirano (Yokohama) Teiichi Ito (Tokyo)
Seitaro Tsuboi (Tokyo)

EDITORIAL BOARD

Editor

Kyoichi Sadanaga, Mineralogical Institute, Faculty of Science, University of Tokyo, Hongo, Tokyo 113.

Co-editors

Nobuo Morimoto, Institute of Scientific and Industrial Research, Osaka University, Yamadakami, Suita, Osaka 565.

Mitsuaki Nakahira, National Institute for Researches in Inorganic Materials, Komukai, Sakura-mura, Niihari-gun, Ibaraki 300-31.

Ichiro Sunagawa, Institute of Mineralogy, Petrology and Economic Geology, Faculty of Science, Tohoku University, Sendai 980.

Fujio F. Okamura (Technical Editor), Mineralogical Institute, Faculty of Science, University of Tokyo, Hongo, Tokyo 113.

VOLUME 6

(Nos. 1–6, 1969–1972)

The Mineralogical Society of Japan

College of General Education, University of Tokyo
Komaba, Meguro-ku, Tokyo

CONTENTS OF VOLUME 6

No. 1/2. December, 1969

Page

Apophyllite from Gobessho in Ôtsu City, Japan ..... M. Tatekawa 1

On the Perthitic Structure of Moonstones (I). A Moonstone Having a New type of Perthitic Structure ..... M. Tatekawa and M. Kanezaki.... 7

Synthesis of Kilchoanite .....T. Mitsuda and K. Fukuo.... 17

Wairakite-Analcime Solid Solutions from Low-grade Metamorphic Rocks of the Tanzawa Mountains, Central Japan ..... Y. Seki and Y. Oki.... 36

Abnormal Interference Colour of Crystals According to the Munsell System .....T. Shoda.... 46

Synthesis of Species-P from Clinoptilolite at Low Temperatures and Pressures .....M. Utada and H. Minato.... 57

The Occurrence of Strontian Chabazite from Miyanohira, Ôme, Tokyo .....K. Nakao, K. Harada and A. Kato.... 69

The Force Fields of the Rutile Counterparts: TiO_2, MgF_2, ZnF_2 and FeF_2 ..... K. Iiishi, T. Tomisaka and Y. Umegaki.... 77

Pyromorphite-Mimetite Minerals from the Otaru-Matsukura ..... A. Nakamoto, Y. Urasima, S. Sugiura, H. Nakano, T. Yachi and K. Tadokoro.... 85

Fluor-Polylithionite: A Lithium Mica with Nearly Hexagonal $(Si_2O_5)^{2-}$ Ring .....H. Takeda and C. W. Burnham....102

X-Ray Study of the Phase Transformations of Enstatite.... ..... R. Sadanaga, F. P. Okamura and H. Takeda....110

Mineralogical Abstracts from the Scientific Papers Published in Japan (6001~6033).....131

No. 3. September, 1970

Synthesis of Tobermorite from Zeolite .....T. Mitsuda....143

Structure Gap in $BaSO_4$-$PbSO_4$ Solid Solution Series ....B. Takano, M. Yanagisawa and K. Watanuki....159

Two-dimensional Regular Aggregates of Layered Crystals .. .. S. Sueno, H. Takeda and R. Sadanaga....172

Bournonite from Daikoku, Chichibu Mine, Saitama, Japan .. K. Harada, O. Sakamoto, K. Nakao and K. Nagashima....186

Mineralogical Abstracts from the Scientific Papers Published in Japan (6034~6069) 189

No. 4. March, 1971

Structural Investigation of Polymorphic Transition between $2M_2$-, 1M-Lepidolite and $2M_1$ Muscovite ..... H. Takeda, N. Haga and R. Sadanaga.... 203
Studies on Long-period Polytypes of Silicon Carbide ..... T. Nishida.... 216
Thermal Transformations in SiC Crystals ..... T. Tagai, S. Sueno and R. Sadanaga.... 240
Compositional Variations of Magnetite during the Eruption and their Bearing on the Stage of Crystallization of Magma of Futatsu-dake, Haruna Volcano ..O. Oshima.... 249
Equilibrium Relations in Mg-rich Part of the Pyroxene Quadrilateral .....Y. Nakamura.... 264
Mineralogical Abstracts from the Scientific Papers Published in Japan (6070~6105) 277

No. 5. September, 1971

Saponite from the Wakamatsu Mine, Tottori Prefecture, Japan .....J. Kitahara.... 289
Celadonite in the Tuff of Oya, Tochigi Prefecture, Japan .. .. N. Kohyama, S. Shimoda and T. Sudo.... 299
Pentlandite, Niccolite and Gersdorffite from the Han Deresi and Günes Districts, near Divrigi, Sivas, Eastern Turkey ..... K. Harada, Y. Tagawa, K. Nagashima, K. Nakao and N. Tsukahara.... 313
Growth Mechanism of Whiskers and Needle Crystals (Prisms) of Aluminum Nitride ..T. Ishii, T. Sato and M. Iwata.... 323
New Occurrence of Ferrierite .....S. Yajima, T. Nakamura and E. Ishii.... 343
On the High-clino Phase of Enstatite..... R. Sadanaga and F. P. Okamura.... 365
Classification of Twins I. Bisecting Twin Axis and Principal Twin Axis .....Y. Takano and K. Sakurai.... 375

Synthesis of Septechlorite Solid Solution and its Evuilibrium Relation with Phlogopite ..... T. Yamanaka and M. W. Bodine, Jr....383
An Algebraic Analysis of Twinned Reciprocal Space for Structure Determination .....F. P. Okamura....405
Mineralogical Abstracts from the Scientific Papers Published in Japan (6106~6125) 423

No. 6. April, 1972

Solid Solutions in the System ZrO_2-TiO_2 .....A. Ono....433
Syntheses of Monoclinic and Tetragonal ZrO_2 at High Temperatures .....A. Ono....442
Thermal Transformation of Muscovite in Molten KCl ....M. Akizuki, S. Sato and I. Sunagawa....448
Anhydrous Synthesis of Greigite, Fe_3S_4 .... H. Nakazawa and K. Sakaguchi....458
Synthetic Mg-Chlorite in Relation to Natural Chlorite .... H. Shirozu and H. Momoi....464
Growth Process of Baddeleyite (ZrO_2) in PbF_2 Flux .... Y. Fujiki and Y. Suzuki....477
A New Polytype of Silicon Carbide, 45R, and Its Structure Analysis According to a Simple Assumption Newly Introduced.....Z. Inoue, Y. Inomata and H. Tanaka....486
Preparation and Surface Observation of Berndtite (SnS_2) Single Crystals .....Y. Fujiki and Y. Ishizawa....498
Mineralogical Abstracts from the Scientific Papers Published in Japan (6126~6149) 503